

# SMT-COMP 2015 entry: CVC3 (Version 2.4.3)

## 1 Introduction

CVC3 is a tool for determining the satisfiability of a first order formula modulo a first order theory (or a combination of such theories). CVC3 is the third incarnation of the Cooperating Validity Checker family of tools. An overview of the system can be found in [1] and on the CVC3 web site at <http://www.cs.nyu.edu/acsys/cvc3>.

## 2 SMT-COMP

### 2.1 Problem Divisions

CVC3 is capable of competing in all divisions. However, as it is no longer actively maintained and its architecture is not as performant as modern solvers, its entry into many divisions is uninteresting; other competitors will handily surpass it in performance. Accordingly, we chose to enter it only into divisions where it might be of interest (due to low competition or superior performance in the past): *all* nonlinear arithmetic divisions and *all* quantified divisions.

### 2.2 Expected Performance

CVC3 has primarily undergone minor bugfixing since SMT-COMP 2012. Its performance is not expected to have changed significantly. CVC3's strength continues to be its open-source platform and its ability to solve problems in all divisions.

## 3 People

CVC3 is a joint project of New York University and The University of Iowa. The project leaders are Clark Barrett (NYU) and Cesare Tinelli (U Iowa). Code contributions since SMT-COMP 2012 have been made by Clark Barrett and Morgan Deters.

## 4 Random seed

33333.

## References

[1] Clark Barrett and Cesare Tinelli. CVC3. In *CAV*, pages 298–302, 2007.